



August 22, 2011

By Electronic Filing

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: IB Docket No. 11-109
FCC File No. SAT-MOD-20101118-00239

Dear Ms. Dortch:

OnStar LLC ("OnStar") hereby files this response to the Office of Engineering and Technology's Request for additional information¹ regarding the Final Report of the Technical Working Group ("TWG") and the Recommendation of LightSquared Subsidiary LLC ("LightSquared"), filed on June 30, 2011.²

¹ Letter from Julius P. Knapp, Chief, Office of Engineering and Technology, FCC to Jeffrey Carlisle, Exec. V.P. Reg. Affairs and Public Policy, LightSquared and Charles Trimble, Chairman. U.S. GPS Industry Council (Aug. 10, 2011).

² See Final Report, attached to letter from Henry Goldberg, Counsel, LightSquared, to Marlene H. Dortch, Secretary, FCC (June 30, 2011); Recommendation of LightSquared Subsidiary LLC, attached to letter from Henry Goldberg, Counsel, LightSquared Subsidiary LLC, to Marlene H. Dortch, Secretary, FCC (June 30, 2011).

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
August 22, 2011

Production/Sales Information

As part of the TWG anechoic chamber testing, OnStar provided two devices to be evaluated for GPS interference: OnStar's 9th generation ("OnStar Embedded") of its standard equipment that is embedded in most General Motors vehicles³ and OnStar's newest product, OnStar For My Vehicle ("FMV").⁴ These devices are current production models and are in-market today.

OnStar is the world's largest telematics service provider representing a significant portion of the automotive telematics market. OnStar Embedded is included within the purchase price of most General Motors vehicles while FMV is an after-market product which was launched in August 2011⁵ and is sold at consumer electronics stores. Although previous generations of OnStar Embedded were not tested,⁶ our GPS chips have remained consistent and interference concerns apply equally to previous generations. As such, the accumulated installed base of OnStar equipped vehicles is approximately 15 million units.⁷ That number continues to grow as more than 2.2 million OnStar devices are installed on new GM vehicles in the United States each year.⁸

³ OnStar's 9th generation hardware launched in 2010 (Device Code Key G16534); however, the first generation of embedded OnStar hardware with integrated GPS tracking was launched in 1997.

⁴ OnStar FMV offers many of the same safety, security and connectivity features as OnStar Embedded; however, the technology is housed in a rear-view mirror and is available for installation on most automobiles. OnStar FMV is an aftermarket product and it is not exclusive to General Motors Vehicles (Device Code Key G16382).

⁵ OnStar FMV was launched in August 2011, and therefore, annual production and sales figures are not yet available for this product. FMV is compatible with most popularly sold vehicles and has an addressable market of 90 million vehicles.

⁶ 9th Generation hardware is in operation in over 2 million units with an additional 1 million sold per year.

⁷ 14 million represents the approximate number of vehicles currently on the road with embedded OnStar equipment that is either active or capable of being reactivated. OnStar currently has approximately 6 million active subscribers. With the simple double-press of the OnStar button, a vehicle can be reactivated.

⁸ *GM U.S. Deliveries for Dec. 2010 – Div. Brand Level*, available at http://investor.gm.com/sales-production/docs/sales_prod/12_10/Deliveries%20December%202010.pdf (Last visited on Aug. 19, 2011).

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
August 22, 2011

Due to improvements in vehicle quality and reliability, the National Automobile Dealers Association reported that in 2009, the median age of vehicles on the road was 9.4 years.⁹ Barring any interference by 3rd parties, it is OnStar's expectation and desire to be able to continue to provide our services for the duration of the useful life of the vehicle.

Technical Performance Data

The technical performance data was difficult to gather in the short timeframe for which this information was requested. Some of the information requested is specific to the device manufacturers.

All of OnStar's GPS receivers and antennas are purchased as commercially available components. As a result some GPS performance data may be proprietary to the device manufacturer. While OnStar has used numerous GPS chips over the past 15 years, both devices tested in the Technical Work Group study used the SiRF GSC3e/LPa tracking device which is a standard (high volume) automotive-grade part. OnStar has requested but has not yet received the RF filter response (1,100 MHz – 2,000 MHz) between the antenna connector and the RF_IN pin to the GPS receiver component. We will continue to work with our vendors in an attempt to gather this information.

For OnStar Embedded, the hardware antenna vendor is Laird.¹⁰ The low noise amplifier ("LNA") gain is 26 dB, and we have not yet confirmed the 1 dB compression point. For FMV, our antenna vendor is Amotech.¹¹ Our LNA vendor is CEL (California Eastern Laboratories). The power gain is 20 dB, and the 1 dB compression point is -22 dBm.

As the Commission is evaluating responses from OnStar and other TWG participants, OnStar respectfully requests that the Commission focus on limiting uncertainties within the GPS industry and for the millions of GPS users by formally prohibiting LightSquared terrestrial transmission activities in the upper 10 MHz portion of its downlink spectrum. Further, OnStar encourages the Commission to require more objective static and dynamic testing to support the viability of transmitting in LightSquared's lower 10 MHz of downlink spectrum. OnStar can only speak for our own products and the subscribers who rely on our service; however, as it stands today, we are not confident in LightSquared's assertion that transmissions in the lower 10

⁹See The National Automobile Dealer's Association, *NADA DATA: State of the Industry Report 2010* at 15 (2010), available at http://www.nada.org/NR/rdonlyres/41CF3D08-1E7C-4934-ACE2-E87F4A983944/0/NADA_Data_2010_f2.pdf.

¹⁰ GM Part Number is #96968203.

¹¹ Part Number A18-4135753-AM10 (SINGLE 3DB 3:1 18mM).

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
August 22, 2011

MHz of its spectrum will not cause GPS interference. We do not have nearly enough data to support this conclusion. OnStar will not endorse a solution that does not fully address the concerns of our 6 million subscribers who rely on GPS for the safety, security and connectivity of OnStar.

Sincerely,

/s/ Thomas Jeffers

Thomas Jeffers
Public Policy
OnStar, LLC
400 GM Renaissance Center
P.O. Box 400
Detroit, MI 48265-4000
Telephone: (313) 665-2797
E-mail: thomas.jeffers@onstar.com

/s/ Nikola J. Pudar

Nikola J. Pudar
Vice President for Business Development
OnStar, LLC
400 GM Renaissance Center
P.O. Box 400
Detroit, MI 48265-4000
Telephone: (313) 667-9148
E-mail: nick.pudar@onstar.com

cc: Julius Knapp
Ron Repasi